REMARKS

The present amendment is filed in response to the Board of Patent Appeals and Interferences decision dated January 29, 2009, rejecting pending claims 1-6, 8-15, 17-27, and 29-32. This amendment is accompanied by a request for continued examination (RCE) of the instant application with the requisite fees.

Claims 1, 27, and 32 have all been amended to call for a first facer that affords the gypsum board of claims 1 and 27 and the hydraulic set board of claim 32 with sufficient smoothness to permit it to be directly painted, i.e., painted to achieve an aesthetically pleasing appearance without the need for surface preparation by skim coating with plaster or the like. Support for the amendment of claim 28 is provided by the specification, e.g. at page 6, lines 9-11, and page 7, lines 11-14. Consequently, no new matter has been added.

Claim 31 has been amended to recite gypsum board constructed with a mat having a Frazier air permeability of at least about 300 cfm/ft^2.

Claims 28-30 have been cancelled to expedite prosecution.

Applicant' invention, as recited by claims 1-6, 8-15, 17-27, and 31-32, as amended, is directed to a paintable gypsum or hydraulic board. In various embodiments, the board exhibits a combination of desirable structural and functional features that render it fire resistant and paintable or otherwise able to be given an aesthetically pleasing finish after installation with a minimum of surface preparation required. The mat has a high permeability,

permitting easy extraction of excess water ordinarily present during slurry-based manufacture of gypsum or other hydraulic set board. Surprisingly and unexpectedly, gypsum board faced in accordance with the invention with the present nonwoven glass fiber mat, wherein the fibers consist essentially of chopped glass fibers having an average fiber diameter ranging from about 9.5 to 12.5 μm and an average fiber length ranging from about 6 to 12 mm, has a smoother surface than boards made with mats employing either larger or smaller diameter fibers. The smoothness of the surface permits the board to be painted directly, without the need for a skim coat of plaster, that heretofore has been required. Elimination of that skim coat markedly improves the efficiency of installation and ultimate finishing of the board, as required for most construction projects.

It is especially surprising and significant that the aforementioned 9.5 to 12.5 μm fibers result in smoother board than that obtained with fibers having a smaller diameter. It is likewise surprising and unexpected that a gypsum board having a facer wherein the average glass fiber diameter is 9.5 – 12.5 μm and the average fiber length is 6 – 12 mm is smoother than board faced with mat having the same diameter but fiber length of 19 mm (3/4").

Claims 1-6, 8-15, 17-19, 21-24, 26-27, and 29-32 stand rejected under 35 USC 103(a) as being unpatentable over US Patent 5,772,846 to Jaffee, which provides a thermoformable nonwoven fibrous mat having properties said to make it particularly suited for a facer on insulating gypsum board.

Applicant respectfully submits that Jaffee fails even to recognize the possibility of a gypsum or like construction board that is faced with a non-woven, glass-fiber mat, yet has a surface that smooth enough to be directly paintable without the need for extensive surface preparation, such as the supplemental application of a skim coat of plaster or similar material. Absent this recognition, a skilled artisan would not be led to the present facer materials for gypsum or other hydraulic set board.

In view of the amendment of claims 1, 27, 31, and 32; the cancellation of claims 29-30; and the foregoing remarks, it is submitted that claims 1-6, 8-15, 17-19, 21-24, 26-27, and 31-32, as amended, are novel and unobvious over Jaffee.

Accordingly, reconsideration of the rejection of amended claims 1-6, 8-15, 17-19, 21-24, 26-27, and 31-32 under 35 USC 103(a) as being unpatentable over Jaffee is respectfully requested.

Claim 20 stands rejected under 35 USC 103(a) as being unpatentable over Jaffee in view of US Patent 6,365,533 to Horner, Jr., et al., which relates to a low fiber, plyable facer suitable for use in insulation board manufacture.

Applicant respectfully maintains that Horner, like Jaffee, fails even to recognize the possibility of a gypsum or like construction board that is faced with a non-woven, glass-fiber mat, yet has a surface that smooth enough to be directly paintable without the need for extensive surface preparation, such as the supplemental application of a skim coat of plaster or similar material.

Applicant respectfully maintains that having failed to recognize the conditions required to provide a paintable surface gypsum board, Jaffee fails to teach the invention recited by claim 20. In particular, Jaffee's shortcoming goes far beyond the mere lack of disclosure of a second face comprising kraft paper. The structural and functional distinctions between Jaffee's board and the board defined by applicant's claims are set forth hereinabove in connection with the 103(a) rejection of claims 1-6, 8-15, 17-19, 21-24, 26-27, and 29-32 over Jaffee. Clearly, Horner, Jr., et al. does not recognize paintability, and also does not disclose or suggest an average fiber diameter ranging from about 9.5 to 12.5 μm. In this respect the Horner, Jr. et al. teaching does not appreciably add to the Jaffee teaching, and cannot be combined therewith to render obvious the board called for by applicant's claims. Inasmuch as Horner, Jr. et al. does not cure the aforementioned deficiencies of Jaffee, its combination therewith does not render obvious the invention of claim 20.

For these reasons, and those set forth above, it is submitted that the proposed combination of Jaffee and Horner, Jr., et al. does not disclose or suggest the gypsum board recited by present claim 20.

Accordingly, reconsideration of the rejection of claim 20 under 35 U.S.C. 103(a) as being obvious over the combination of Jaffee and Horner, Jr., et al. is respectfully requested.

Claim 25 was rejected under 35 USC 103(a) as being unpatentable over Jaffee in view of US Patent 7,056,582 to Carbo, which discloses acoustical tiles, also known as acoustical

panels, ceiling tiles, or ceiling panels, that are said to inhibit the growth of fungus, bacterial and other micro-organism.

Applicant respectfully maintains that Carbo, like Jaffee, fails even to recognize the possibility of a gypsum or like construction board that is faced with a non-woven, glass-fiber mat, yet has a surface that smooth enough to be directly paintable without the need for extensive surface preparation, such as the supplemental application of a skim coat of plaster or similar material.

For at least the reasons set forth hereinabove, it is submitted that Jaffee fails to disclose or suggest the claimed invention. Clearly, Carbo, whether taken singly or in combination with Jaffee, does not remedy the lack of disclosure or suggestion of a mat imparting direct paintability to the gypsum board made with the present mat, as delineated by amended claim 1, on which claim 25 depends.

Accordingly, reconsideration of the rejection of claim 25 under 35 U.S.C. 103(a) as being obvious over the combination of Jaffee and Carbo is respectfully requested.

In view of the amendment of claims 1, 27, 31, and 32, the cancellation of claims 28-30, and the foregoing remarks, it is respectfully submitted that the present application has been placed in allowable condition. Reconsideration of the rejection of claims 1-6, 8-15, 17-27, and 29-32, and allowance of the present application, as delineated by amended claims 1-6, 8-15, 17-27, and 31-32, are, therefore, earnestly solicited.

Respectfully submitted,

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By [signature]
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